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ABSTRACT

Group treatment based on cognitive-behavioral and social problem solving strategies has been found to produce significant improvement in aggressive children. To investigate the association between clients' initial behavioral and subjective characteristics and the degree of improvement displayed on behavioral measures over the treatment period, 76 fourth, fifth, and sixth grade boys, identified by their teachers as aggressive, were assigned to one of four treatment groups: cognitive behavioral (CB), goal setting (GS), CB plus GS (CBGS), and a no treatment condition (NT). The CB treatment consisted of 12 weekly group sessions which focused on the development of interpersonal, cognitive, and problem solving skills and on inhibiting self-statements. In the GS condition, boys identified weekly classroom behavioral goals which were monitored by teachers and reinforced in group meetings. To measure behavioral change, both teacher and parental ratings of aggression and measures of self-esteem, socioeconomic status and problem solving skills were collected. An analysis of the results showed that in both cognitive behavioral conditions, greater reduction in rates of disruptive-aggressive off-task classroom behavior was predicted by having higher rates of these behaviors initially. Greater reduction in parents' ratings of aggression was predicted by having poor social problem-solving skills initially. Additional predictors of reductions in parents' ratings of aggression in one, but not both, cognitive behavioral conditions included having higher rates of somatic symptoms and poorer social acceptance by peers. Improvement within the goal setting condition was most evident in those boys who had initially poorer self-esteem. Boys in the NT condition who demonstrated the greatest spontaneous improvement on these change measures were the ones who initally were the best problem-solvers and who had higher levels of self-esteem. The cognitive behavioral conditions appeared to have most impact with those boys who were the most in need of intervention. (Author/BL)

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Client Characteristics Associated with Treatment Outcome for Aggressive Boys

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ABSTRACT

THIS STUDY EXAMINED THE RELATIONSHIP BETWEEN SUBJECT CHARACTERISTICS OF AGGRESSIVE BOYS AND THEIR BEHAVIORAL CHANGES DURING A SCHOOL YEAR. SEVENTY-SIX BOYS IN THE FOURTH, FIFTH AND SIXTH GRADES WERE IDENTIFIED BY THEIR TEACHERS AS THE MOST DISRUPTIVE AND AGGRESSIVE IN THEIP CLASSES. THESE BOYS WERE ASSIGNED TO NO TREATMENT, COGNITIVE BEHAVIORAL, GOAL SETTING, AND COGNITIVE BEHAVIORAL PLUS GOAL SETTING TREATMENT CONDITIONS. THE COGNITIVE BEHAVIORAL TREATMENT CONSISTED OF 12 WEEKLY GROUP SESSIONS WHICH FOCUSED PRIMARILY ON THE DEVELOPMENT OF INTERPERSONAL COGNITIVE PROBLEM SOLVING SKILLS AND OF INHIBITING SELF-STATEMENTS. IN THE GOAL SETTING CONDITION, BOYS IDENTIFIED WEEKLY BEHAVIORAL GOALS FOR THEMSELVES IN THEIR CLASSROOMS. THESE GOALS WERE MONITORED DAILY BY THE TEACHERS, AND SATISFACTORY GOAL ATTAINMENT WAS REINFORCED DURING WEEKLY GROUP MEETINGS WITH A COUNSELOR. IN BOTH COGNITIVE BEHAVIORAL CONDITIONS, GREATER REDUCTIONS IN RATES OF DISRUPTIVE-AGGRESSIVE OFF-TASK CLASSROOM BEHAVIOR WAS PREDICTED BY HAVING HIGHER RATES OF THESE BEHAVIORS INITIALLY, AND GREATER REDUCTIONS IN PARENTS' RATINGS OF AGGRESSION WAS PREDICTED BY HAVING POOR SOCIAL PROBLEM-SOLVING SKILLS INITIALLY. ADDITIONAL PREDICTORS OF REDUCTIONS IN PARENTS' RATINGS OF AGGRESSION IN ONE, BUT NOT BOTH, COGNITIVE BEHAVIORAL CONDITION INCLUDED HAVING HIGHER RATES OF SOMATIC SYMPTOMS AND POORER SOCIAL ACCEPTANCE BY PEERS. IMPROVEMENT WITHIN THE GOAL SETTING CONDITION WAS MOST EVIDENT IN THOSE BOYS WHO HAD INITIALLY POORER SELF-ESTEEM. IN CONTRAST TO THE OTHER CONDITIONS, THOSE BOYS IN THE NO TREATMENT CONDITION WHO DEMONSTRATED THE GREATEST SPONTANEOUS IMPROVEMENT ON THESE CHANGE MEASURES WERE THE ONES WHO INITIALLY WERE THE BEST PROBLEM-SOLVERS AND WHO HAD HIGHER LEVELS OF SELF-ESTEEM. THE COGNITIVE BEHAVIORAL CONDITIONS APPEARED TO HAVE MOST IMPACT WITH THOSE BOYS WHO WERE THE MOST IN NEED OF INTERVENTION.

Client Characteristics Associated with Treatment Outcome for Aggressive Boys

Group treatment based on cognitive behavioral and social problem solving strategies have been found to produce significant improvement in aggressive children (Forman, 1980; Hobbs, Moguin, Tyroler and Lahey, 1980; Lochman, Nelson and Sims, 1981). However, the results of many of these programs have indicated that these aggressive children do not change on all the dependent measures used in the studies (Hobbs et al, 1980), and that some of the treated children do not demonstrate any apparent improvement (Lochman, Burch, Curry and Lampron, Note 1). In the context of the broad field of psychotherapy research, these findings are not surprising, since the general consensus has been that specific treatment orientations and methods are probably maximally effective with certain types of clients (Bergin, 1971).

Research efforts have only recently begun to examine the relative effects of treatment, therapist and client characteristics in cognitive behavioral treatment with children. In a series of studies with impulsive children, Kendall has investigated the influence of a conceptual versus a concrete instructional orientation (Kendall and Wilcox, 1980; Kendall, 1981), of individual versus group treatment formats (Kendall and Zupan, 1981; Kendall, 1982), and of therapists' empathy and the strength of the therapist-child relationship (Kendall and Wilcox, 1980). The only study exploring client characteristics that affect the outcome of cognitive behavioral interventions with children has been an analogue study with a nonclinical summer camp sample (Copeland and Hammel, 1981). No research has begun to

identify the client or treatment characteristics associated with improvement for samples of aggressive boys.

The present study will examine the association between clients' initial behavioral and subjective characteristics and the degree of improvement they display on several behavioral measures over the treatment period. The two behavioral change measures will be children's disruptive and aggressive off-task classroom behavior, and parents' behavioral ratings of aggression. Since prior research has indicated that aggressive children display poorer self-esteem (Deluty, 1981), lower sociometric status (Deluty, 1981) and poorer means-ends problem solving thinking (Richard and Dodge, 1981), measures of self-esteem, sociometric status and problem solving skills will be used as potential predictors of behavioral change. Additional potential predictors will include independently observed levels of children's off-task classroom behavior, and parents' ratings of boys' aggression, activity level and somatization behaviors.

Correlation between the behavioral change measures will be made within each of four experimental conditions. The conditions consist of cognitive behavioral group treatment (CB), goal setting treatment (GS), cognitive behavioral plus goal setting treatment (CBGS) and a no treatment condition (NT). In the goal setting treatment, children's weekly goals were established in a group, the goals were monitored daily by the classroom teacher, and the boys received contingent reinforcement if appropriate goal attainment occurred. Previous findings have indicated that the two cognitive behavioral treatment conditions were significantly more effective in improving the scores on the behavioral change measures than were the goal setting treatment or the no

treatment condition and that the CBGS condition tended to be the most effective of all. (Lochman, Burch, Curry, Lampron, Note 1).

Method

The 76 fourth, fifth and sixth grade boys examined in this study had been identified by teachers in eight elementary schools as the most aggressive in their classes. The teacher ratings of the boys' aggressive behavior on the Missouri Children's Behavior Checklist were ordinally ranked. Based on the scores, boys were assigned in an alternating fashion to the different experimental conditions.

The cognitive behavioral anger-coping groups met for twelve weekly sessions. The content of the structural sessions was based on the Lochman, Nelson and Sims (1981) groups, and included group discussions, role-playing, simulation games and modeling tapes. Groups consisted of five to six boys and were co-led by guidance counselors and staff from the Durham Community Guidance Clinic. The groups were conducted within the boys' schools in the Durham County School system.

The measures were administered prior to the intervention, and the behavioral change measures were readministered at an average of four to six weeks following the intervention. The eleven measures included (a) the Passive Off-Task and the Disruptive Aggressive Off-Task Categories of the Behavior Observation Schedule for Pupils and Teachers (BOSPT), (Breyer and Calchera, 1971), (b) the Aggression, Activity Level and Somatization subscales of the Missouri Children's Behavior Checklist (MCBC) completed by parents (Sines, Pauker, Sines and Owen, 1969), (c) the number of alternatives on the Problem Solving Measures (PSM) (Allen, Chinsky, Larcen, Lochman and Selinger, 1976), (d) the General, School, Social (Peer) and Home subscales of the Coopersmith Self-Esteem

Inventory (Coopersmith, 1967), and (e) the boys' social acceptance scores derived from classmates' sociometric ratings (Allen et al, 1976). Adequate interscorer reliability was maintained for the BOSPT and the PSM.

Results

Behavioral change scores for the BOSPT Disruptive/Aggressive Off-Task percentage and the MCBC Aggression scale were computed by substracting pretest scores from postest scores. Thus, positive change scores indicated that subjects had become worse on these measures, while negative change scores indicated behavioral improvement. Within each of the four experimental conditions, person correlation coefficients were computed between these two behavioral change scores and the eleven pretest measures.

The BOSPT Disruptive/Aggressive change score was significantly correlated with the BOSPT Disruptive/Aggressive pretest score in the CBGS condition ($r = -.76$, $p < .001$), and in the CB condition ($r = -.62$, $p < .01$), with General Self-Esteem ($r = 0.43$, $p < .05$), and Home Self-Esteem ($r = .41$, $p < .05$) in the GS condition, and with General Self-Esteem ($r = .41$, $p < .05$), School Self-Esteem ($r = .43$, $p < .05$), and Problem Solving Measure Alternatives ($r = .54$, $p < .05$) in the NT condition. The MCBC Aggression scale change score was significantly correlated with Problem Solving Measure Alternatives ($r = .56$, $p < .01$) and the MCBC Somatization scale ($r = -.53$, $p < .01$) in the CBGS condition, with Problem Solving Measure Alternatives ($r = .41$, $p < .05$) and Peer Social Acceptance ($r = .48$, $p < .05$) in the CB condition, and with Home Self-Esteem ($r = -.45$, $p < .05$) and Peer Self-Esteem ($r = -.44$, $p < .05$) in the NT condition. In all, 13 of 88 correlations were significant.

Subsequent stepwise multiple regression analyses indicated the BOSPT Disruptive/Aggressive change scores were significantly predicated by the BOSPT Disruptive/Aggressive pretest score in the CBGS condition ($r = -.76$),

the BOSPT Disruptive/Aggressive pretest score in the CB condition ($r = -.62$), and Problem Solving Measure Alternatives in the NT condition ($r = -.53$). MCBC Aggression scale change scores were significantly predicted by Problem Solving Measure Alternatives, and MCBC Somatization scale scores (combined $r = .75$) in the CBGS condition, and by Peer Social Acceptance ($r = -.48$) in the CB condition. No significant regression equations were found for the other two conditions for this change score.

Discussion

Without intervention, the aggressive children in the no treatment condition who demonstrated the greatest relative improvement during a school year in their level of disruptive and aggressive behavior in their classroom had the best initial skills at generating alternative solutions to social problems and had the highest initial level of general and school-related self-esteem. Conversely, with lower initial levels of problem-solving skills and self-esteem, boys were likely to become even more disruptive during the course of the year. These findings provide empirical support for the assumption that interpersonal cognitive problem-solving skills and perceptions of self-esteem partially mediate naturally occurring changes in boys' disruptive and aggressive behavior.

Among the boys who received either of the cognitive behavioral interventions, those boys who initially displayed the higest rates of disruptive and aggressive off-task classroom behavior demonstrated the greatest improvement after the intervention on this classroom behavior change score. Similarly, the boys who had the greatest reductions in parents' ratings of aggressive behavior following the cognitive behavioral interventions were the individuals who initially had generated the fewest alternative solutions

to social problems. The CBGS and CB interventions had the greatest impact on the children who apparently would have demonstrated the greatest increase in disruptive and aggressive behavior if left untreated. The key role of problem-solving skills in predicting the outcome of treatment suggests that this intervention based upon problem-solving skill training successfully altered the behavior of those boys who were initially the poorest problem solvers and most in need of treatment. These similar findings across both conditions replicates the value of these variables as predictors of outcome.

The other significant predictor of changes in parents' ratings of their boys' aggression for the boys in the cognitive behavioral plus goal setting groups was the parents' initial ratings of their sons' somatization tendencies. High scores on these scales could indicate anxiety expressed indirectly through somatic complaints. Higher initial levels of somatic complaints was correlated with greater reduction in aggression. This may suggest that these boys were more uncomfortable with their aggressive behavior and more motivated to utilize the CBGS training. Within the CB only groups, reductions in parents' ratings of boys' aggression primarily occurred with those boys who were most unpopular with their peers. Perhaps in the absence of external reinforcement systems inherent in the goal setting procedure, those boys who receive more peer rejection associated with their aggressive behavior have the most motivation to incorporate the problem solving training.

In summary, certain client characteristics do appear to be related to the magnitude of behavioral improvement following cognitive behavioral treatment with aggressive boys. The regression equations indicated that the relationship between these predicted variables and the behavioral change scores was quite strong and accounted for a large portion of the variance.

Significantly, the problem solving skills predicted the behavioral change scores for both the No treatment and cognitive behavioral conditions, but in opposite directions. While high levels of social problem solving skills naturally help to produce reductions in disruptive and aggressive behavior, the group interventions produced the greatest improvement in those boys with the poorest problem solving skills.

Reference Note

1. Lochman, J.E., Burch, P.R., Curry, J.F. and Lampron, L.B. Treatment and generalization effects of cognitive behavioral and goal setting interventions with aggressive boys. Unpublished manuscript, 1983.

References

Allen, G.J., Chinsky, J.M., Larcen, S.W., Lochman, J.E., and Selinger, H.V. Community psychology and the schools: A behaviorally oriented multi-level preventive approach. New York: Wiley, 1976.

Bergin, A.E. The evaluation of therapeutic outcomes. In A.E. Bergin and S.L. Garfield (Eds.), Handbook of psychotherapy and behavior change: An empirical analysis. New York: Wiley, 1971.

Breyer, N.L. and Calchera, D.J. A behavioral observation schedule for pupils and teachers. Psychology in the Schools, 1971, 8, 330-337.

Coopersmith, S. Antecedents of self-esteem. San Francisco: Freeman, 1967.

Copeland, A.P. and Hammel, R. Subject variables in cognitive self-instructional training. Cognitive Therapy and Research, 1981, 5, 405-420.

Deluty, R.H. Adaptiveness of aggressive, assertive and submissive behavior for children. Journal of Clinical Child Psychology, 1981, 10, 155-158.

Forman, S.G. A comparison of cognitive training and response cost procedures in modifying aggressive behavior of elementary school children. Behavior Therapy, 1980, 11, 594-600.

Hobbs, S.A., Moguin, L.E., Tyroler, M. and Lahey, B.B. Cognitive behavior therapy with children: Has clinical utility been demonstrated? Psychological Bulletin, 1980, 87, 147-165.

Kendall, P.C. One-year follow-up of concrete versus conceptual cognitive-behavioral self-control training. Journal of Consulting and Clinical Psychology, 1981, 49, 748-749.

Kendall, P.C. Individual versus group cognitive-behavioral self-control training: 1-year follow-up. Behavior Therapy, 1982, 13, 241-247.

Kendall, P.C. and Wilcox, L.E. Cognitive-behavioral treatment for impulsivity: Concrete versus conceptual training in non-self-controlled problem children. Journal of Consulting and Clinical Psychology, 1980, 48, 80-91.

Kendall, P.C. and Zupan, B.A. Individual versus group application of cognitive-behavioral self-control procedures with children. Behavior Therapy, 1981, 12, 344-359.

Lochman, J.E., Nelson, W.M.III, and Sims, J.P. A cognitive behavioral program for use with aggressive children. Journal of Clinical Child Psychology, 1981, 10, 146-148.

Richard, B.A. and Dodge, K.A. Social maladjustment and problem solving in school-aged children. Journal of Consulting and Clinical Psychology, 1982, 50, 226-233.

Sines, J.O., Pauker, J.D., Sines, L.K. and Owen, D.R. Identification of clinically relevant dimensions of children's behavior. Journal of Consulting and Clinical Psychology, 1969, 33, 728-734.